

## CLAIMS

1. A variable length decoding device comprising:
  - a decoding unit operable to decode different kinds of variable length codes
  - 5 encoded in accordance with a plurality of encoding systems;
  - a stream input unit operable to input the different kinds of variable length codes; and
  - an interface unit operable to interface said decoding unit with said stream input unit,
  - 10 wherein said stream input unit and said interface unit are commonly used in decoding the different kinds of variable length codes.
2. The variable length decoding device as defined in claim 1, wherein said decoding unit comprises:
  - a reconfigurable logic circuit operable to decode the different kinds of variable
  - 15 length codes encoded in accordance with the plurality of encoding systems.
3. The variable length decoding device as defined in claim 1, wherein said decoding unit comprises:
  - a plurality of decoders, each of said plurality of decoders being operable to
  - decode each of the different kinds of variable length codes encoded in accordance with
  - 20 the plurality of encoding systems.
4. The variable length decoding device as defined in claim 3, wherein said interface unit comprises:
  - a decoder selector connected to said stream input unit and operable to select
  - one of said plurality of decoders, according to a code system signal indicative of one of
  - 25 the plurality of encoding systems employed in encoding.
5. The variable length decoding device as defined in claim 4, wherein a decoder not selected by said decoder selector among said plurality of decoders is

controlled so as to suppress electric power consumption thereof.

6. The variable length decoding device as defined in claim 1, wherein said stream input unit comprises:

a code detecting unit operable to detect a start code included in stream data.

5 7. The variable length decoding device as defined in claim 1, wherein said stream input unit comprises:

a shift register operable to store register data consisting of a part of stream data;

10 a data selector operable to transfer the stream data in a fixed bit width from said shift register to said interface unit; and

a pointer controlling unit operable to control a stream pointer to determine a position of the stream data, and

wherein said interface unit comprises:

15 a stream data bus operable to hold and transfer the stream data to said decoding unit;

a stream enable signal line operable to hold and transfer a stream enable signal to said decoding unit, the stream enable signal being indicative of interruption of decoding; and

20 a decoding start signal line operable to hold and transfer a decoding start signal to said decoding unit, the decoding start signal being indicative of start of the decoding.

8. The variable length decoding device as defined in claim 7, wherein said decoding unit notifies said stream input unit of a code length upon completion of the decoding, and

25 wherein said pointer controlling unit moves, in accordance with the notified code length, a position of the stream data to be pointed at by the stream pointer.